

TECHNICAL DATA AND PROCESS SHEET

20% CARBON FIBER REINFORCED POLYETHERSULFONE

INELEC PESCF20

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.44		1.44	
SPECIFIC VOLUME		19.2	in ³ /lb	0.694	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	0.3	%	0.30	%
MOLD SHRINKAGE	D955	0.2-0.3	%	0.2-0.3	%
MECHANICAL					
TENSILE STRENGTH	D638	22,000	psi	152	MPa
ELONGATION, YIELD	D638	1-3	%	1-3	%
FLEXURAL STRENGTH	D790	31,000	psi	214	MPa
FLEXURAL MODULUS	D790	2,000,000	psi	13,790	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.3	ft.lb./in.	69	J/m
UNNOTCHED 1/8"		10	ft.lb./in.	533	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL @ 264 PSI	D648	410	°F	210	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	1.2	in./in. F x10 ⁻⁵	2.16	mm/mm C 10 ⁻⁶
FLAMMABILITY ¹	U.L.Subj 94	V0@1/16	in	V0@ 1.5	mm
ELECTRICAL					
SURFACE RESISTIVITY		10e ² -10e ⁴	ohms/sq	10e ² -10e ⁴	ohms/sq
PROCESSING					
DRYING TEMPERATURE		300	°F	149	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		650-715	°F	343 - 380	°C
MOLD TEMPERATURE		300	°F	149	°C
BACK PRESSURE		50-100	psi	0.3 - 0.7	MPa
SCREW SPEED		40-70	rpm	40-70	rpm
VENT DEPTH		0.0015-0.003	in	0.038 - 0.075	mm

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